

REMARKS

Claims 2, 4, 6, 8-11, 13, 14 and 18-25 remain pending in the present application.

Claim 2 has been amended. Basis for the amendments can be found throughout the specification, claims and drawings as originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 2, 4, 6 and 18-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sperry in view of Rogers (U.S. Pat. No. 5,484,492). Claims 22, 24 and 25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Sperry and Rogers and in further view of Ichinose, et al. (U.S. Pat. No. 5,993,576). Applicants respectfully traverse this rejection. Claim 2 defines the aluminum alloy contains 0.1 to 1 %wt of at least one element selected from the group comprises of Rb, K, Ba, Sr, Zr, Nb, Ta, V and Pd. In addition, the aluminum contains rare earth elements in order to inhibit casting defects which are attributed to molten hydrogen gas in the alloy casting.

Rogers discloses adding an element Z which can be any element which forms an intermetallic phase at a temperature in excess of the temperature of the primary Si. The element Z is selected such that the crystals of the intermediate phase enable nucleation of primary Si thereon to form complex particles (column 4, lines 51-59). In column 6, lines 22-34, Rogers states that the most highly preferred examples of element Z include Ca, Co, Cr, Fe, Mn and Sr. Other less highly preferred examples of element Z include Cs, K, Li, Na, Rb, Sb and elements from Lanthanide and Actinide series.

Thus, Rogers is directed to solving an entirely different problem than the problem addressed by the present invention.

The C.C.P.A. addressed the required standards for combining references under Section 103 in the case of In re Meng and Driessen, 492 F.2d 834, 181 USPQ 94 (C.C.P.A. 1974). In the Meng case, Chief Judge Markey stated that although an invention may appear to be rendered obvious by a disclosure in the prior art reference, such a holding of obviousness is not proper when the disclosure occurs in a reference that is not directed toward the same problem as that addressed by the invention. Judge Markey further cautioned that the teachings or suggestions of such a reference must be evaluated without the use of hindsight gleaned from the applicant's disclosure, and thus must be viewed in a vacuum so far as the applicant's invention is concerned. 181 USPQ at 97.

Applicants submit that the proper test for evaluating prior art under 35 U.S.C. Section 103 is whether or not the prior art, either individually or taken together, can be seen as suggesting the applicants' solution to the problem which the invention addresses. See: Rosemont, Inc. v. Beckman Instrument, Inc., 221 USPQ 1, 7, (Fed. Cir. 1984). The scope of pertinent prior art has been defined as that reasonably pertinent to the particular problem with which the inventor was involved. See: Lindemann Machinefabrik GMBH v. American Hoist and Derrick Co., 221 USPQ 481, 487 (Fed. Cir. 1984). Applicants assert that the use of hindsight in picking and choosing isolated elements from various pieces of prior art and applying them to the problems addressed by applicants' invention is improper according to the above-discussed judicial standards governing the proper application of 35 U.S.C. Section 103.

In a recent decision of the C.A.F.C., Panduit Corp. v. Dennison Manufacturing Co., 810 F. 2d 1561, 1 USPQ 2d 1593 (Fed. Cir. 1987), Chief Judge Markey discussed

and applied the various judicial pronouncements in reversing a lower court's holding of invalidity based on obviousness under Section 103, and further cautioned against the impermissible use of hindsight in picking and choosing isolated elements from various pieces of prior art, which bear little or no relationship to each other or to the problems addressed by the Applicant's invention, in reconstructing the claimed invention from the Applicant's own disclosure.

In the Panduit decision, Chief Judge Markey offered the opinion that such impermissible hindsight reconstruction from isolated elements in a number of prior art references in order to arrive at the claimed combination is contrary to the purpose of the patent laws.

"Virtually all inventions are necessarily combinations of old elements. The notion, therefore, that combination claims can be declared invalid merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents and cannot be the law under the statute, Section 103." 810 F. 2d at 1575, 1 USPQ 2d at 1603.

Furthermore, Judge Markey severely criticized the lower court for failing to view the claimed combination invention as a whole, but rather selecting bits and pieces from prior patents that might be modified to fit the lower court's interpretation of the claims.

Further, in the Panduit decision, Judge Markey discussed the fact that the large body of prior art, individual pieces of which show various bits and pieces of the claimed combination, can actually support a conclusion of non-obviousness, rather than serving as a basis for hindsight bit-by-bit reconstruction of the claimed invention.

"Indeed, that the elements noted by the court lay about in the prior art available for years to all skilled workers, without, as the court found, suggesting anything like the claimed inventions, is itself evidence of non-obviousness. ...[The court] nowhere reconciled [its] evaluations with its contrary findings that no one skilled in the art had for years been led to

those evaluations by the prior art." 810 F. 2d at 1577-78, 1 USPQ 2d at 1605.

Judge Markey's opinion also addressed the hindsight picking and choosing problem accordingly:

"The district court nowhere pointed to anything in the prior art that would have suggested the desirability, and thus the obviousness, of making the distinctive structural elements and combinations...invented and claimed. Nor did the court succeed in the difficult task of casting its mind back into that of a person of ordinary skill in the art that had no pre-knowledge of the crucial structural differences that vitalize [the] inventions." 810 F. 2d at 1580, 1 USPQ 2d at 1606 (emphasis in the court's opinion).

In the present application, the cited references relate to problems that are quite distinct from the specific problems addressed by Applicants' claimed invention. Thus, it appears that at the time the invention was made, one skilled in the art would not have looked to these references in order to solve these problems, at least as these problems are addressed by Applicants' claimed invention.

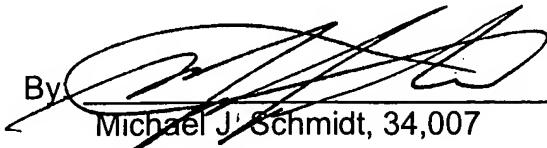
Thus, Applicants believe Claim 2 patentably distinguishes over the art of record. Likewise, Claims 4, 6 and 18-21, which ultimately depend from Claim 2, are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office

Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

By 
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